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EXAMINER

BELLAMY, TAMIKO D

ART UNIT PAPER NUMBER

2856

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



H/A

**Office Action Summary**

Application No.

10/661,693

Applicant(s)

KOWALSKI, KENNETH H.

Examiner

Tamiko D. Bellamy

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-18 and 35 is/are allowed.
- 6) ☐ Claim(s) 1-4, 8-13, 19 and 21 is/are rejected.
- 7) ☒ Claim(s) 5-7, 14, 15 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/31/05 &amp; 5/13/04</u>   | 6) <input type="checkbox"/> Other: _____                                    |



**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Keller (2001/0032506).

Re claim 11, as depicted in figs. 2D and 4-7, Keller discloses a plurality of magnetically actuatable switches (e.g., magnetic sensors (22a-22d)) that are actuatable as a magnetic field passes the switches. Keller discloses an electrically actuated visible indicator (28), electrically connected with the switches (e.g., magnetic sensors (22a-22d)) and that is selectively actuatable as the magnetic field passes the switches (See Pars. 44 & 47). Keller discloses a remote readout that is electrically connected with the switches (e.g., magnetic sensors (22a-22d)) for indicating remotely from the tank the level of liquid in the tank (See Par. 47).

Re claims 12 and 13, as depicted in figs. 2D and 4-7, Keller discloses the visible indicator (28) comprises a plurality of lights that are selectively turned on and off as the magnetic field passes the switches (See Par. 47). Re further limitation of claim 13, Keller discloses lights are arranged in a single column and each of the lights in the column are either on or off.

***Claim Rejections - 35 USC § 103***



Art Unit: 2856

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 8-10, 19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (6,067,855) in view of Issachar (6,028,521).

Re to claims 1 and 19, as depicted in fig. 2, Brown et al. discloses a float (20) within a tank/container (1). Brown et al. discloses a plurality of magnetic reed switches (40) connected to corresponding LEDs (41) (col. 7, lines 22-30). While Brown et al. lacks the detail of a float that is external to the tank, the device of Brown et al. would operate equally as well with an stem that is fluidically coupled to a tank. If Brown's et al. float were placed in a stem, it would still rise and fall with the level of fluid within the stem. Issachar discloses in figs. 7 and 8, an external float (e.g., a floating magnet (80) within hollow handle (78)) that is external to a tank/vessel (e.g., kettle (70)) and activating a magnetic switch (e.g., sensing and control device with magnetic switch) (Col. 6, lines 54-61). Therefore, to modify Brown et al. by employing a float external to the tank would have been obvious to one of ordinary skill in the art at the time of the invention since Issachar teaches a level measurement system having theses design characteristics. The skilled artisan would be motivated to combine the teachings of Brown et al. and Issachar since Brown et al states that his invention is applicable to measuring the liquid level of a sealed container and Issachar is directed to measuring level of fluid within a stem/handle coupled to a tank/kettle.



Re to claim 2, Brown et al. discloses magnetic reed switches. While, Brown et al. does not specifically disclose that the switches are Hall effect transistors, Brown et al. specifically discloses (see col. 7, lines 13-15) that other magnetically actuated switches may also be suitable in place of the magnetic reed switch (40). Issachar discloses that the magnetically actable switch may be a reed switch or a hall-effect switch (col. 2, lines 30-31). Therefore, to modify Brown et al. by employing Hall effect transistors would have been obvious to one of ordinary skill in the art at the time of the invention since Issachar teaches a liquid level sensing device having these design characteristics. The skilled artisan would be motivated to combine the teachings of Brown et al. and Issachar since Brown et al. states that his invention is applicable to measuring the liquid level of a container and Issachar is directed to monitoring the liquid level in a vessel.

Re claim 3, as depicted in fig. 5, Brown discloses a remote readout (60) electrically connected to switches (50). While Brown et al. does not specifically disclose in fig. 5, the remote readout including the plurality of lights as disclosed in figs., 2 and 3, the use of a remote readout is well known in the art. Hence, the rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Therefore, to employ Brown et al. on a remote readout connected to the switches including the lights also connected to the switches would have been obvious to one of



ordinary skill in the art at the time of the invention since this reference explicitly teaches measuring the liquid level of a container.

Re to claims 4 and 21, as depicted in fig. 3, Brown et al. discloses each of the LEDs (41) comprise a single column of lights (41) associated in one-on-one relationship with the plurality of switches (40).

Re claims 8 and 9, the combination of Brown and Issachar discloses a plurality of lights. The combination of Brown and Issachar lacks the detail of a plurality of lights being a first color and a second color. However the selection of color is a design clearly in the preview of one having ordinary skill in the art. Therefore, to modify Brown et al. by employing lights having first and second colors would have been obvious to one of ordinary skill in the art at the time of the invention since Issachar teaches a liquid level sensing device having these design characteristics. The skilled artisan would be motivated to combine the teachings of Brown et al. and Issachar since Brown et al. states that his invention is applicable to measuring the liquid level of a container and Issachar is directed to monitoring the liquid level in a vessel.

Re to claim 10, as depicted in fig. 3, the switches and the lights are on the same circuit board.

#### *Allowable Subject Matter*

5. Claims 3, and 5-7 are objected to as being dependent upon a rejected base claim 1, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.



Art Unit: 2856

6. Claim 20 is objected to as being dependent upon a rejected base claim 19, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 14 and 15 are objected to as being dependent upon a rejected base claim 11, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 16-18, and 35 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Re claim 16, the independent claim includes “a plurality of LED’s on a circuit board arranged in a series of rows, each row having a least two LED’s;” in combination with the remaining claim limitation is not taught and/or made obvious by the prior art. As depicted in fig. 3, Brown et al. ‘855 teaches a single row of LED’s (41) and a plurality of magnetically actuatable switches (40) associated with a one on one relationship with the row of LED’s. Brown et al. ‘855 does not teach **a plurality of LED's on a circuit board arranged in a series of rows, each row having a least two LED's.**

Re claim 22, the independent claim includes “ a first indicator means having a first visible state for indicating visibly the amount of the span that is above the magnetic field; and a second indication means having a second indicator means having a second visible state different from the first visible state for indicating visibly the amount of the span that is below the magnetic field“ in combination with the remaining claim limitation is not taught and/or made obvious by the prior art. As depicted in fig. 3, Brown et al. ‘855 teaches a single row of LED’s (41) and a plurality of magnetically actuatable switches (40) associated with a one on one



Art Unit: 2856

relationship with the row of LED's. Brown et al does not teach **a first indicator means having a first visible state for indicating visibly the amount of the span that is above the magnetic field; and a second indication means having a second indicator means having a second visible state different from the first visible state for indicating visibly the amount of the span that is below the magnetic field.**

Re claim 26, the independent claim includes " a first indicator having a first visible state for indicating visibly the amount of the span that is above the magnetic field; and a second indication having a second indicator means having a second visible state different from the first visible state for indicating visibly the amount of the span that is below the magnetic field" in combination with the remaining claim limitation is not taught and/or made obvious by the prior art. As depicted in fig. 3, Brown et al. '855 teaches a single row of LED's (41) and a plurality of magnetically actuatable switches (40) associated with a one on one relationship with the row of LED's. Brown et al does not teach **a first indicator having a first visible state for indicating visibly the amount of the span that is above the magnetic field; and a second indication means having a second indicator having a second visible state different from the first visible state for indicating visibly the amount of the span that is below the magnetic field.**

Re claim 30, the independent claim includes " at least two adjacent sets of electrically actuatable latching visible indicators forming pairs of at least two visible indicators, the visible indicators in the first set being actuatable by the magnetic field to a first visible state, and the visible indicators in the second set being actuatable by the magnetic field to a visible state different from the first visible state" in combination with the remaining claim limitation is not taught and/or made obvious by the prior art. As depicted in fig. 3, Brown et al. '855 teaches a



Art Unit: 2856

single row of LED's (41) and a plurality of magnetically actuatable switches (40) associated with a one on one relationship with the row of LED's. Brown et al does not teach **at least two adjacent sets of electrically actuatable latching visible indicators forming pairs of at least two visible indicators, the visible indicators in the first set being actuatable by the magnetic field to a first visible state, and the visible indicators in the second set being actuatable by the magnetic field to a visible state different from the first visible state.**

Re claim 34, the independent claim includes " a set of visible indicators electrically actuatable by the switches to a first visible state or a second visible state different from the first visible state; and the switches being latchable so that a visible indicator maintains its visible state when the magnetic field moves away until another, subsequent magnetic field causes the visible indicator to switch to the other visible state" in combination with the remaining claim limitation is not taught and/or made obvious by the prior art. As depicted in fig. 3, Brown et al. '855 teaches a single row of LED's (41) and a plurality of magnetically actuatable switches (40) associated with a one on one relationship with the row of LED's. Brown et al does not teach a **set of visible indicators electrically actuatable by the switches to a first visible state or a second visible state different from the first visible state; and the switches being latchable so that a visible indicator maintains its visible state when the magnetic field moves away until another, subsequent magnetic field causes the visible indicator to switch to the other visible state.**

Re claim 35, the independent claim includes " a float externally to the tank that produces a magnetic field that moves vertically as the float rises and falls; and a plurality of lights electrically connected with the switches that are actuated as the magnetic field passes the



Art Unit: 2856

switches; plurality of lights comprise only one column of lights associated in one relationship with the plurality of switches, each one of the lights being either the first visible state or the second visible state depending on the state of its associated switch" in combination with the remaining claim limitation is not taught and/or made obvious by the prior art. **See remarks received 5/4/05.**

***Response to Remarks***

9. Applicant's arguments with respect to claims 1, 2, 4, 8-10, and 21 have been considered but are moot in view of the new ground(s) of rejection. It is the examiners position that claims 1, 2, 4, 10, and 21 are not patentable in view of the newly applied art of over Brown et al. (6,067,855) in view of Issachar (6,028,521). Furthermore, the applicant submits that there is lacking the necessary motivation to combine the references. However, as long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor." **In re Beattie, 974 F.2d 1009, 1312, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992).**

10. The indicated allowability of claims 11-13 is withdrawn in view of the newly discovered reference(s) to claims 11-13. Rejections based on the newly cited reference(s) follow.

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamiko D. Bellamy whose telephone number is (571) 272-2190. The examiner can normally be reached on Monday - Friday 7:30 AM to 3:30 PM.



Art Unit: 2856

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

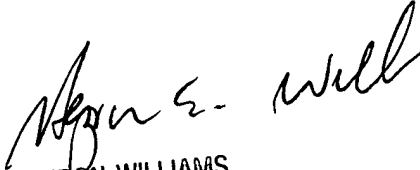
Tamiko Bellamy



July 27, 2005



Art Unit: 2856

  
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